

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended) A driver for a motor to move an object, comprising:
a ~~movement~~ difference calculator ~~that calculates~~ configured to calculate a difference between an amount of angular displacement ~~movement~~ of the object and a target value; and
a motor controller ~~that controls~~ configured to control the motor so that the object moves at a constant velocity, based on the difference.

Claim 2 (Currently Amended) The driver according to claim 1, further comprising a pulse frequency calculator ~~that calculates~~ configured to calculate a pulse frequency for driving the motor, based on the difference and a reference pulse frequency, wherein the motor is a pulse motor, and the motor controller controls the pulse motor so that the object moves at a constant velocity, based on the pulse frequency calculated.

Claim 3 (Currently Amended) The driver according to claim 1, wherein the object is a rotor, ~~the amount of movement is an angular displacement of the rotor,~~ and the motor controller controls the motor so that the rotor rotates at a constant angular velocity, based on the difference.

Claim 4 (Currently Amended) The driver according to claim 1, wherein the object is a drive rotor ~~that turns~~ configured to turn a driven rotor through a belt that is wound around ~~between~~ the drive rotor and the driven rotor.

Claim 5 (Currently Amended) The driver according to claim 1, wherein the object is a driven rotor ~~that is turned~~ configured to be turned through a belt ~~that is wound around~~ ~~between~~ the driven rotor and a drive rotor, and the drive rotor is turned by the motor.

Claim 6 (Currently Amended) The driver according to claim 1, wherein the object is a belt ~~that is wound around~~ ~~between~~ a drive rotor and a driven rotor, and the drive rotor is turned by the motor.

Claim 7 (Currently Amended) The driver according to claim 1, ~~wherein the~~ further comprising:

a pulse frequency calculator ~~includes~~ comprising a low-pass filter ~~that shapes~~ configured to shape a waveform of the difference.

Claim 8 (Currently Amended) The driver according to claim 1, ~~wherein the~~ further comprising:

a pulse frequency calculator ~~includes~~ comprising a low-pass filter and a multiplier.

Claim 9 (Currently Amended) The driver according to claim 1, further comprising:

a ~~movement~~ measuring unit ~~that measures~~ configured to measure the amount of movement angular displacement.

Claim 10 (Currently Amended) The driver according to claim 9, ~~further comprising~~ wherein a resolution of the movement measuring unit is greater than $[[a]]$ double an amplitude of a main variation component of the object.

Claim 11 (Currently Amended) The driver according to claim 9, wherein the ~~movement~~ measuring unit is a rotary encoder.

Claim 12 (Currently Amended) The driver according to claim 9, wherein the ~~movement~~ measuring unit is a linear encoder.

Claim 13 (Currently Amended) The driver according to claim 11, wherein the object is a belt ~~that is~~ wound around ~~between~~ a drive rotor turned by the motor and a driven rotor, and the rotary encoder is provided on ~~the~~ a driven roller.

Claim 14 (Currently Amended) The driver according to claim 11, wherein the object is a belt ~~that is~~ wound around ~~between~~ a drive rotor turned by the motor and a driven rotor, and the rotary encoder is provided on ~~the~~ a drive roller.

Claim 15 (Currently Amended) The driver according to claim 12, wherein the object is a belt ~~that is~~ wound around ~~between~~ a drive rotor turned by the motor and a driven rotor, and the linear encoder is provided on the belt.

Claim 16 (Currently Amended) An image forming apparatus comprising:
an image carrier;
a motor to move the image carrier;
a ~~movement~~ measuring unit ~~that measures~~ configured to measure an amount of ~~movement~~ angular displacement of the image carrier;
a ~~movement~~ difference calculator ~~that calculates~~ configured to calculate a difference between the amount of ~~movement~~ angular displacement and a target value; and

a motor controller ~~that controls~~ configured to control the motor so that the image carrier moves at a constant velocity, based on the difference.

Claim 17 (Original) The image forming apparatus according to claim 16, wherein the image carrier is a photosensitive drum.

Claim 18 (Original) The image forming apparatus according to claim 16, wherein the image carrier is a photosensitive belt.

Claim 19 (Original) The image forming apparatus according to claim 16, wherein the image carrier is a transfer drum.

Claim 20 (Original) The image forming apparatus according to claim 16, wherein the image carrier is a transfer belt.

Claim 21 (Currently Amended) The image forming apparatus according to claim 16, wherein the image carrier ~~includes~~ comprises a plurality of image carriers ~~that carry~~ configured to carry toner images of a plurality of colors, and the toner images are sequentially superposed on a belt~~[[-]] like image carrier~~ to form a color image.

Claim 22 (Currently Amended) An image reading apparatus comprising:

an object including an optical system for image reading;

a motor configured to move the object along a plane of a target to be read;

a ~~movement~~ measuring unit ~~that measures~~ configured to measure an amount of ~~movement~~ angular displacement of the object;

a ~~movement~~ difference calculator ~~that calculates~~ configured to calculate a difference between the amount of ~~movement~~ angular displacement and a target value; and

a motor controller ~~that controls~~ configured to control the motor so that the object moves at a constant velocity, based on the difference.

Claim 23 (Currently Amended) A method of driving a motor to move an object, comprising:

measuring an amount of ~~movement~~ angular displacement of the object;

calculating a difference between the amount of ~~movement~~ angular displacement and a target value; and

controlling the motor so that the object moves at a constant velocity, based on the difference.

Claim 24 (Currently Amended) A computer program product for driving a motor to move an object, the computer program product including computer executable instructions stored on a computer readable medium, wherein the instructions, when executed by the computer, cause the computer to perform:

~~measuring~~ computer executable instructions in the computer program configured to measure an amount of ~~movement~~ angular displacement of the object;

~~calculating~~ computer executable instructions in the computer program configured to calculate a difference between the amount of ~~movement~~ angular displacement and a target value; and

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computer executable instructions in the computer program controlling
configured to control the motor so that the object moves at a constant velocity, based on the
difference.